

### **Abstract of the Disclosure**

An optical system for simultaneously compensating a source  
5 drift of a light source and a detector drift of a light  
detector includes a test location, a first beam path from the  
light source to the test location, a second beam path from the  
test location to the light detector. First and second beam  
paths are arranged to intersect at a beam crossing. A  
10 calibration sample having a known reflectivity is positioned at  
the test location and illuminated by a probe beam generated by  
the light source. A known response beam of the calibration  
sample is used for calibrating the light source and the  
detector. A reference sample is placed at the beam crossing  
15 and illuminated by the probe beam. In response, the reference  
sample sends a reference beam along the second path length,  
which is used for compensating the source and detector drift.

DISCLOSED - SEE DOCUMENT